

Claims listing:

1. (original) A body fluid sampling system comprising:
 - a penetrating member driver;
 - a plurality of penetrating members sufficient for penetrating tissue;
 - a tape coupling together at least two of said penetrating members;
 - a penetrating member release device removing the penetrating member from a sterile environment prior to use and moving said penetrating member into position to be operatively coupled to said penetrating member driver.
2. (original) The system of claim 1 wherein said release device comprises a rotating member having a portion of sufficient sharpness to at least partially penetrate said tape and a portion shaped to engage said penetrating member, said rotating member movable to urge said penetrating member to engage a coupler on the penetrating member driver.
3. (original) The system of claim 1 wherein said release device comprises a rotating member having a portion of sufficient sharpness to penetrate a penetrating member enclosure.
4. (original) The system of claim 1 wherein said release device comprises a movable member sufficient to pierce a penetrating member enclosure, engage the penetrating member, and moving said penetrating member to engage a coupler on the penetrating member driver.
5. (original) The system of claim 1 further comprising a penetrating member unloading device to remove said penetrating member from the penetrating member driver.
6. (original) The system of claim 1 wherein said penetrating members comprise a unitary body.
7. (original) The system of claim 1 wherein said penetrating members are without molded attachments.
8. (cancelled)
9. (original) A tissue penetrating system for use with a plurality of penetrating members, the tissue penetrating system comprising:
 - a penetrating member driver;
 - a penetrating member release device removing one of the penetrating members from a sterile environment prior to use;

a penetrating member loading device receiving penetrating members from the release device, said loading device moving said penetrating member to be operatively coupled to said penetrating member driver.

10. (original) The system of claim 9 wherein said loading device comprises a transfer drum having an area shaped to receive one of said penetrating members.

11. (original) The system of claim 9 wherein said loading device comprises a transfer drum having an opening for receiving one of said penetrating members.

12. (original) The system of claim 9 further comprising penetrating member unloading device for moving said penetrating member from the coupler to a storage canister.

13. (original) A tissue penetrating system for use with a plurality of penetrating members, the tissue penetrating system comprising:

a penetrating member driver;

a penetrating member transport device;

a penetrating member loading device receiving penetrating members from the transport device, said loading device moving said penetrating member to be operatively coupled to said penetrating member driver;

wherein said penetrating member transport device is configured to receive said penetrating members in a sealed condition and to deliver said penetrating members in an unsealed condition to the penetrating member loading device.

14. (original) The system of claim 13 wherein said penetrating member transport device uses a plurality of rollers positioned to advance the penetrating members and to remove each one from a sealed condition prior to reaching the penetrating member loading device..

15. (original) The system of claim 13 wherein said penetrating member transport wherein said loading device includes a surface configured for slidably engaging said penetrating member from the transport device.

16. (original) The system of claim 13 wherein said penetrating member transport wherein said loading device includes a surface configured for slidably engaging said penetrating member from the transport device, said surface being a hole and an L-shaped penetrating member or a penetrating member with orthogonal orientation.

17. (original) A tissue penetrating system for use with a penetrating member driver and a plurality of penetrating members, said system comprising:

a tape for holding said penetrating members;
 a loading device for moving said penetrating member into position to be coupled to the driver;
 a peel device for removing an active one of said penetrating members from said tape;
 a tape tension device coupled to the peel device for maintaining said penetrating member and synchronizing said penetrating members with said loading device.

18. (original) The system of claim 17 wherein said penetrating members are at a fixed spacing.

19. (original) The system of claim 17 wherein said penetrating member transport device uses a plurality of rollers positioned to advance the penetrating members and to remove each one from a sealed condition prior to reaching the penetrating member loading device..

20. (original) A tissue penetrating system for use with a penetrating member driver and a plurality of penetrating members, said system comprising:

 a penetrating member transport device;

 a penetrating member loading device receiving penetrating members from the transport device, said loading device moving said penetrating member to be operatively coupled to said penetrating member driver;

 a tape peeling assembly peeling said tape apart into a first portion and a second portion, said first portion peeled apart at a selected peel angle relative to the second portion.

21. (original) The system of claim 20 wherein said tape peeling assembly prevents said tape from jamming by maintaining a consistent tension when the tape is being advanced and peeled apart.

22. (original) The system of claim 20 wherein said tape peeling assembly provides a sufficient tension when the tape is being advanced so that the peel point does not change in a manner that the penetrating members no longer align with receiving areas on the loading device.

23. (original) The system of claim 20 wherein said tape peeling assembly maintains a consistent spacing between penetrating members as the members are coupled to the loading device.

24. (original) The system of claim 20 wherein said tape peeling assembly maintains a consistent spacing between a first penetrating member to be removed from the tape and

coupled to the loading device, and a second penetrating member to be coupled to the loading device after the first penetrating member is loaded.

25. (original) The system of claim 20 wherein said tape peeling assembly includes at least one piercing blade for piercing said tape and engaging a first penetrating member to be coupled to the loading device.

26. (original) The system of claim 20 wherein said tape peeling assembly rotates sufficiently to compensate for a slight path difference between the tape and the penetrating member about said loading device, said assembly being tensioned up during advancement of the tape to remove slack in the tape that may alter the peel point.

27. (original) The system of claim 20 wherein said tape includes a plurality of tractor holes.

28. (original) The system of claim 20 wherein said tape peeling assembly is coupled to a differential that tightens the tension to a predefined level and slips if the user winds the differential to tension beyond the predefined level.

29. (original) The system of claim 20 wherein said tape are adhered together in manner such that the tape is peeled apart in a consistent manner.

30. (original) The system of claim 20 wherein said blade on the loading device is above the external stroke of the penetrating member, so said penetrating member is kept clean.

31-37. (cancelled)

38. (original) A tissue penetrating system for use with at least one penetrating member, the tissue penetrating system comprising:

a penetrating member driver;

a penetrating member release device removing the penetrating member from a sterile environment prior to use and moving said penetrating member into position to be operatively coupled to said penetrating member driver.

39. (original) The system of claim 38 wherein said penetrating members are bare penetrating members or without attachments.

40. (original) The system of claim 38 wherein said release device comprises a rotating member having an outer portion of sufficient sharpness to penetrate penetrating member enclosure and a portion shaped to engage said penetrating member, said rotating member

movable to urge said penetrating member to engage a coupler on the penetrating member driver.

41. (original) The system of claim 38 wherein said release device comprises a movable member sufficient to pierce a penetrating member enclosure, engage the penetrating member, and moving said penetrating member to engage a coupler on the penetrating member driver.

42. (original) The system of claim 38 further comprising a penetrating member unloading device to remove said penetrating member from the penetrating member driver.

39-61. (cancelled)